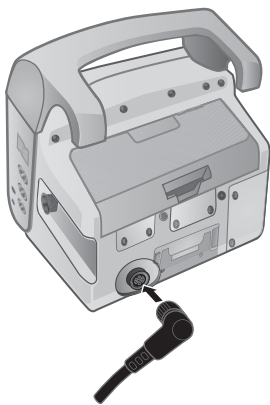


Controls & Indicators



Auxiliary Power Connection

Align arrow with dot and push connector until it locks.









Battery Insertion

Align battery with battery well and push battery into place.



Changing Patient Mode

1. Press  &  to highlight the patient mode field at the top of the display. Press .
2. Press  &  to highlight correct patient mode. Press .

Neonate: Birth through 28 days, or 44 weeks gestational

Pediatric: 29 days through 12 years

Adult: 12 years or greater

Changing Screen Views

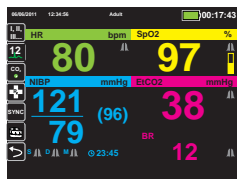
Press  to cycle through the different screens.



Waveform Screen





Trends Screen



Large Numerics Screen

Note:  also acts as a Home key while a menu is displayed.

Changing Display Brightness

Press  &  to cycle through the screen brightness options.



Normal Mode




High Contrast Mode



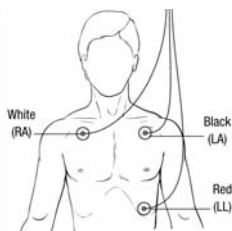
NVG Friendly Mode

Taking a Monitor Snapshot

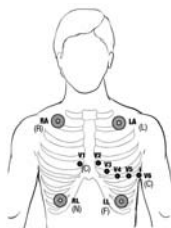
Press  to take a monitor snapshot. The unit records all waveforms for 12 seconds before and after pressing the button, and stores the numeric data on display when the button is pressed.

ECG Monitoring

Apply ECG electrodes.



3-Lead Electrode Placement



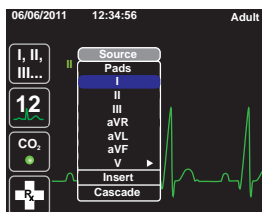
5-Lead Electrode Placement

Changing the Lead Source in Waveform Trace 1

Press **I, II, III...** to cycle through leads until the desired lead is displayed.

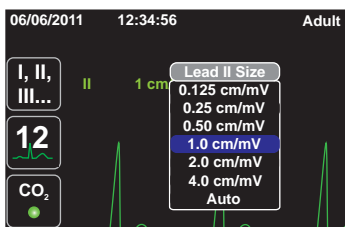
Changing the Lead Source in Waveform Trace 1-4

1. Press **↶** & **↷** to highlight the Source Label above the waveform. Press **⬢**.
2. Press **↶** & **↷** to highlight the desired lead source. Press **⬢**.



Changing the Waveform Gain

1. Press **↶** & **↷** to highlight the Gain Label above the waveform. Press **⬢**.
2. Press **↶** & **↷** to highlight the desired waveform size. Press **⬢**.

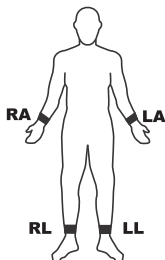


Changing the ECG Sweep Speed

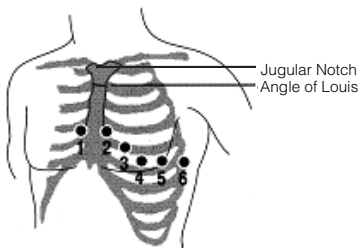
1. Press **↶** & **↷** to highlight the HR numeric. Press **⬢**.
2. Press **↶** to highlight the ECG Sweep Speed. Press **⬢**.
3. Press **↶** & **↷** to highlight the desired sweep speed. Press **⬢**.

12-Lead ECG Monitoring

Apply ECG electrodes.



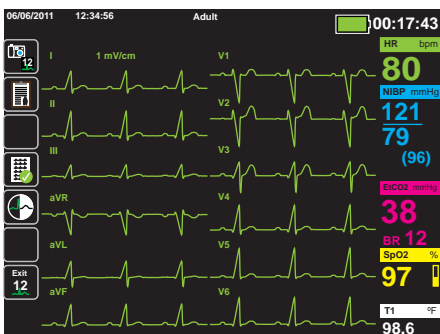
Limb Lead Electrode Placement



V-Lead Electrode Placement

Acquiring a 12-Lead ECG Snapshot

1. Press **12** to enter 12-lead mode.
2. Check for a good quality signal and ensure all leads are displayed.
3. Press **12**.
4. Keep the patient still during the 10-second acquisition period.



Reviewing a Stored 12-Lead Snapshot

1. Press **12** to display the 12-Lead Review menu.
2. Press **←** & **→** to highlight the desired 12-lead snapshot.
Press **⏏**.

Changing Displayed Leads in a 12-Lead Snapshot

Press **I, II, III...** to change the displayed leads for a 12-lead snapshot.

Printing a 12-Lead Snapshot

Press **Print** to print the displayed 12-lead snapshot.

Preparing for NIBP Monitoring

1. Select the correct size cuff.
2. Attach the cuff to the NIBP hose.
3. Attach the hose to the X Series unit.
4. Apply the cuff to the patient's limb.
5. Place the limb at the same level as the patient's heart.
6. Verify the correct patient mode on the X Series unit.



Single Lumen Hose Connection











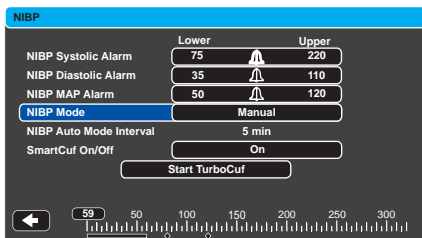
Dual Lumen Hose Connection

Initiating an NIBP Reading









1. Press  to initiate a manual NIBP reading.

Setting Up Automatic NIBP Readings

1. Press  &  to highlight the NIBP numeric. Press .
2. Press  to highlight **NIBP Mode**. Press .
3. Press  &  to toggle to Auto Mode. Press .



Changing the NIBP Auto Interval

1. Press  &  to highlight the NIBP numeric. Press .
2. Press  &  to highlight **NIBP Auto Mode Interval** (mode must be set to Auto). Press .
3. Press  &  to highlight desired interval. Press .

SpO₂ Monitoring (and SpCO and SpMet if equipped)







1. Connect the appropriate sensor cable to the X Series unit.
2. Apply probe to patient.

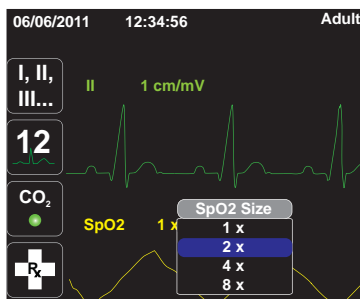
The pleth waveform and oxygen saturation value will automatically appear on the screen when a signal has been detected.



SpO₂ Probe Connection

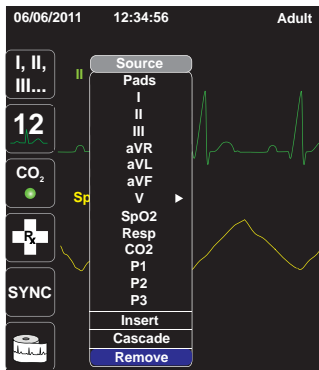
Changing the Waveform Gain

1. Press  &  to highlight the Gain Label above the pleth waveform. Press .
2. Press  &  to highlight the desired waveform size. Press .



Removing the Pleth Waveform

1. Press  &  to highlight the Source Label above the pleth waveform. Press .
2. Press  to highlight **Remove**. Press .



*Note: You can add the pleth waveform back to the display by selecting **Insert** from the Source Label menu or by reconnecting the sensor to the X Series unit and the patient.*

Connecting the CO₂ Sampling Line

1. Slide open the CO₂ inlet port cover on the X Series unit.
2. Insert the fitting at end of the sampling line into the inlet port.
3. Rotate the fitting clockwise to tighten.
4. Attach sampling line to patient or endotracheal tube.



Slide open door & insert fitting



Rotate fitting to tighten







Starting CO₂ Monitoring

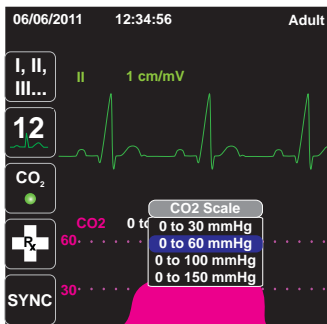
Press  to initiate CO₂ monitoring.

Note: A green LED appears when CO₂ is on, and the unit automatically displays the capnogram and the EtCO₂ value.











Changing the Waveform Scale



















1. Press  &  to highlight the Scale Label above the CO₂ waveform. Press .
2. Press  &  to highlight the desired waveform size. Press .




Changing the CO₂ Sweep Speed

1. Press  &  to highlight the CO₂ numeric. Press .
2. Press  to highlight the CO₂/Resp Sweep Speed. Press .
3. Press  &  to highlight the desired sweep speed. Press .



Enabling Individual Alarms & Setting Alarm Limits

1. Press  &  to highlight the parameter label for the alarm you want to set (e.g., HR/PR). Press .
2. Press  &  to highlight the desired parameter alarm (e.g., HR/PR Alarm). Press .
3. Press  &  to highlight the alarm setting you want to modify (e.g., HR/PR Upper Limit Enable). Press .
4. Press  &  to adjust the setting to the desired value (e.g., On). Press .
5. Press  &  to highlight the alarm limit you want to modify (e.g., HR/PR Upper Limit). Press .
6. Press  &  to adjust the setting to the desired value (e.g., 120). Press .

Note: An alarm must be enabled (turned on) before the alarm limit can be adjusted.

HR/PR			
	Lower		Upper
HR/PR Alarm	50		120
Extreme Brady/Tachy Alarms	-10		+20
LTA Monitoring	Off		
HR/PR Tone	Off		
HR/PR Selected Source	ECG		
Current Source	ECG		
ECG Sweep Speed	25 mm/s		

Enabling Multiple Alarms & Setting Alarm Limits




1. Press .
2. Press  to bring up the Alarm Settings Control Panel.
3. Follow steps 2-6 above to enable alarms and set limits.

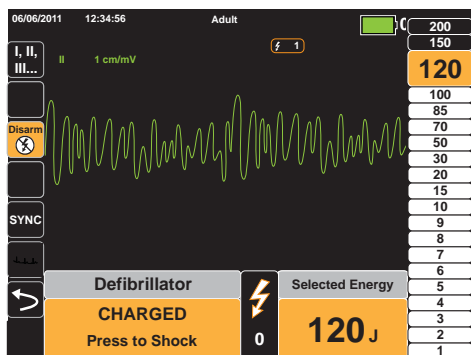
Note: When any parameter alarm limit is disabled (turned off), the message SOME ALARM LIMITS DISABLED will appear on the display.

Silencing an Active Alarm


Press  to silence an active alarm.

Performing Defibrillation





1. Connect therapy (MFC or OneStep™) cable to device.
2. Connect therapy cable to hands-free therapy electrodes.
3. Connect hands-free therapy electrodes to patient.
4. Press ¹  to select desired energy.
5. Press ²  to charge the X Series unit.
6. After the X Series unit is charged, stand clear and press ³  to deliver energy.













Disarming the Defibrillator

While the X Series unit is charging or charged, press  safely disarm the energy. Changing the selected energy will also disarm the X Series unit.


Performing Synchronized Cardioversion

1. Press  to activate Sync mode. Verify sync marker is placed over the R-wave.
2. Press ¹  to select desired energy.
3. Press ²  to charge the X Series unit.
4. After the X Series unit is charged, stand clear then press and hold ³  to deliver energy.





Starting the Pacer & Changing Pacer Settings

1. Press  to bring up the Pacer menu.
2. Confirm Pacer Mode and Pacer Rate.
3. Press  &  to highlight **Start Pacer**.
4. Press  to begin pacing.
5. Press  &  to highlight the Pacer Output. Press .
6. Press  &  to adjust the pacer output until capture occurs, then decrease the output to the lowest level that still maintains capture.
7. Press  to exit the Pacer menu.





Pacer Settings

Mode	Demand
Rate	60
Output	70
Start Pacer	
Turn Pacer Off	
	

Pausing the Pacer

1. Press  to bring up the Pacer menu.
2. Press  &  to highlight **Pause Pacer**.
3. Press  to pause the pacer.

Turning Off the Pacer

1. Press  to bring up the Pacer menu.
2. Press  &  to highlight **Turn Pacer Off**.
3. Press  to turn the pacer off.

